



City of Bloomington

Utilities Department

Frequently Asked Questions about Fats, Oils and Grease (FOG)

Where does FOG come from?

Does your facility cook meat? Serve soups, sauces or salad dressings? Use butter, margarine or oil in food preparation? Fats, oils and grease (FOG) are abundant in and on the foods we eat. When foods are prepared, oils and greases are cooked out of foods or are added as ingredients or non-stick remedies. The FOG ends up on cookware, dishware, kitchen equipment and even floors and floor-mats, all of which must be washed. When kitchen equipment and wares are cleaned, the FOG is washed off and enters the plumbing system. Shortly after this grease enters the drain, it begins to cool and separate from the dishwater. The separated FOG accumulates in private drains, sewer pipes, and sewer lift-stations. In time, this residue builds up, restricting and blocking sewer pipes, causing sewage backups and overflows, and creating headaches for the wastewater treatment plant. The effect is no different on the food service establishment's plumbing system. It is no coincidence that plumbing companies are frequently called to restaurants and other food service establishments to un-clog blocked lines.

Why is FOG a Problem?

Sewer capacity reduction, increased maintenance costs, shortened infrastructure lifespan, blockages, backups, overflows, fines, facility closures, vermin, treatment plant upsets, environmental damage, odor, human health hazards.....

Quite an extensive list of potential problems from just a little grease.

FOG has a negative impact on wastewater collection and treatment systems. Most wastewater collection system blockages can be traced to FOG. Blockages in the wastewater collection system are serious, causing sewage spills, manhole overflows, or sewage backups in homes and businesses.

Large amounts of FOG in wastewater cause trouble in the collection system pipes. It decreases pipe capacity and, therefore, requires that piping systems be cleaned more often and/or some piping be replaced sooner than otherwise expected.

FOG also hampers effective treatment at the wastewater treatment plant. In a liquefied form, FOG may not appear harmful. But, as the liquid cools, the grease congeals and creates thick grease mats on the surface of settling tanks, digesters, and other treatment

structures at the wastewater treatment plant. FOG problems at the plant decrease treatment efficiency, increase operating costs, and can potentially cause interference and pass-through events.

Problems caused by wastes from restaurants and other grease-producing establishments have served as the basis for ordinances and regulations governing the discharge of Fats, Oils and Grease to the sanitary sewer system. Discharge of these types of waste has forced the City of Bloomington Utilities Department to require the installation of onsite wastewater pretreatment devices, commonly known as grease interceptors.

What is a grease interceptor and how does it work?

A grease interceptor is typically a concrete vault with a minimum capacity of 750 gallons. It is built into the wastewater piping and located below ground outside of the food service establishment building. The capacity of the interceptor provides adequate hydraulic retention time so that the suspended FOG in the wastewater has time to congeal and rise to the surface. The vault includes a minimum of two compartments, and flow between each compartment is through a 90° fitting designed for grease retention. Periodically, a service contractor will pump the accumulated grease and other food waste out of the interceptor to maintain its removal efficiency and prevent FOG from reaching the sewer.

What is a grease trap and how does it work?

A trap is a small reservoir built into the wastewater piping a short distance from the grease producing area. Baffles in the reservoir retain the wastewater long enough for the grease to congeal and rise to the surface. These small devices need to be cleaned frequently, from daily to weekly, and this duty is typically performed by restaurant staff. Some plumbing and septic hauling companies offer grease trap cleaning services.

Do I need a grease interceptor or trap?

YES! Facilities that prepare and serve food produce FOG and need grease removal devices. Grease interceptors are the preferred grease removal device of the City of Bloomington Utilities Department for a number of reasons. They are larger, providing longer hydraulic retention time, which facilitates the separation of grease from high temperature dishwater, laden with detergents and emulsifying agents. Some of these devices also have the capacity to accept and treat the discharge from dishwashing machines and food grinders. Grease interceptors are located in outdoor areas and are less likely to create offensive odors and other undesirable effects inside the restaurant. In addition, interceptors only need maintenance every 30 to 90 days. This service is performed by a contractor, eliminating the need to constantly battle with staff to ensure grease traps are being cleaned.

Indoor grease traps can be effective in certain applications, but must be maintained frequently and can't be connected to certain common kitchen fixtures and equipment.

For example, grease traps cannot be connected to food grinders or dishwashing machines. Grease traps are appropriate for small, low volume establishments with limited washing of dishes and kitchen equipment.

Can you Recommend a Maintenance Schedule?

All grease interceptors should be cleaned at least four times each year. Some establishments will find it necessary to clean their interceptors once a month. Grease traps should be cleaned at least once a week. Some need to be cleaned daily. If an establishment has to clean a grease trap too often, the owner should consider installing an interceptor.

What if I don't have a grease trap?

Are you a non-residential facility that prepares and serves food? You need a grease removal device! It surprises many food establishment owners and operators how much FOG they actually produce and discharge to the sewer system. Many facilities experience frequent plumbing problems and don't realize grease removal devices can help eliminate their problems. Don't wait until there is a sewage backup in your kitchen or a FOG problem in the sewer that is traced to your facility. Get in compliance with the City of Bloomington Utilities Department grease waste management policies.

How can I get in compliance?

Contact the City of Bloomington Utilities Department! We will work with your facility to ensure that you have the proper equipment and are using it efficiently. You may have a trap or interceptor that isn't installed, sized or maintained properly. There may already be a grease interceptor or trap at your facility, but you never knew it was there. You may be wasting hundreds or even thousands of dollars a year on unnecessary plumbing costs and poor device maintenance. There are also some simple steps that can be taken in your facility that could significantly reduce or eliminate FOG from entering your plumbing (see FOG Best Management Practices (BMPs)).

What are the criteria for inspecting grease interceptors and traps?

The 25% rule is the standard for determining an acceptable level of waste accumulation in a grease interceptor or trap. What this means is when the interceptor or trap has accumulated waste, both floatable grease and settleable food solids, accounting for 25% of its wetted depth, as measured from the static water line to the tank bottom, the device needs to be cleaned. For more information on proper maintenance procedures, please see "CBU's Grease Trap or Grease Interceptor Maintenance" procedures.

The Bottom Line

Many businesses find that taking steps to prevent FOG materials from entering the sewer system saves money. Keeping FOG out of your drains will reduce the likelihood of

grease related plumbing problems. Fats, oils, and grease can often be recycled, reducing garbage costs.

Establishments that fail to comply with the grease waste management policies of the City of Bloomington Utilities Department and discharge FOG to the city sewer may be required to install additional grease-removal equipment, be fined or even have their utility services terminated.